

Cell lines that are commonly used for protein expression are engineered to include genes that encode suppressors of apoptosis (SA). Insect cell lines expressing these SA genes are resistant to apoptosis or programmed cell death, and express certain recombinant proteins at increased levels. These cell lines also have increased resistance to many types of stress. Because some of the SA proteins inhibit apoptosis in a wide spectrum of organisms, these genes may be inserted into other plant or animal cell lines for a variety of purposes involving resistance to apoptosis or resistance to stress.